



West County High-Capacity Transit Study

Council Presentations

February 28, 2017 – March 21, 2017





Introduction



West County High-Capacity Transit Study

Member Agencies



Study Sponsors



Study Partners



Study Team



M Lee Corporation



VALLIER DESIGN ASSOCIATES, INC.

What is “high-capacity” transit?



High-capacity transit provides:

- Substantially higher levels of passenger capacity
- Fewer stops and higher speeds than local public bus services
- Daily commute-to-work options

Study Process

Public Outreach & Participation

Assessment

- Goals & Objectives
- Relevant Prior Studies
- Existing & Future Transportation & Land Use
- Market Analysis

Alternatives Development & Analysis

- Conceptual Alternatives
- Evaluation Criteria
- Preliminary Evaluation
- Alternatives Refinement
- Ridership Modeling
- Cost Estimates

Final Alternatives

- Funding Options
- Final Alternatives Evaluation ← *We are here*

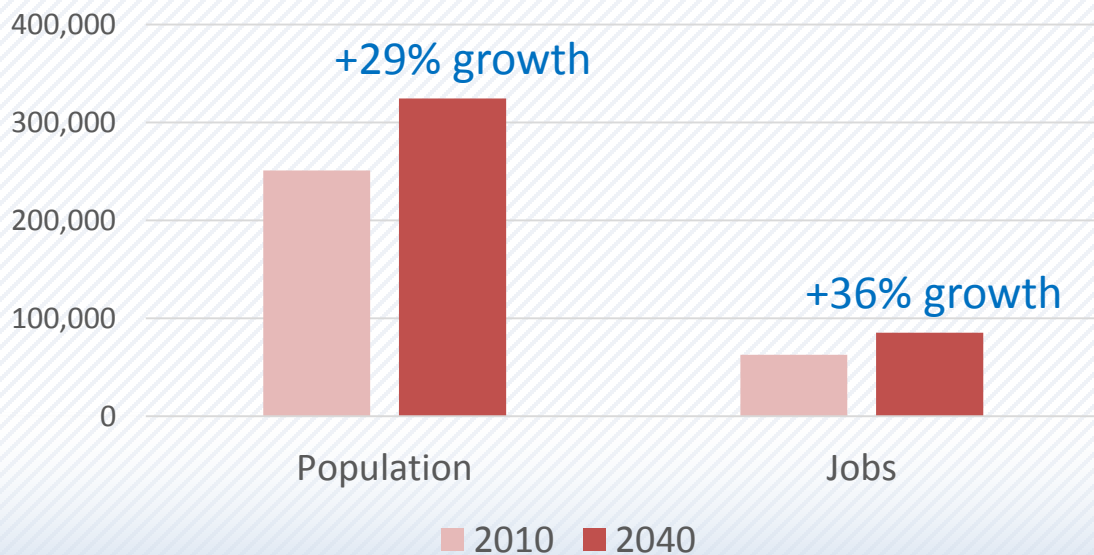
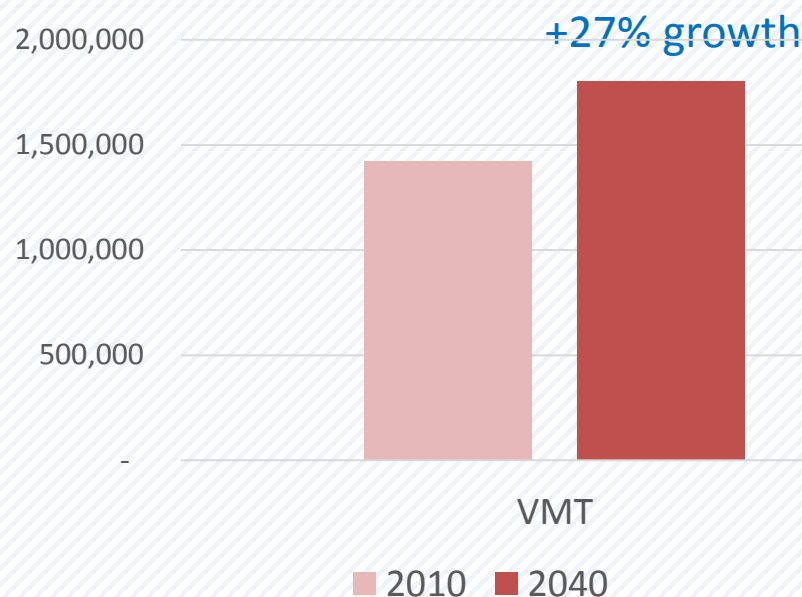
Final Plan

- Summary of Findings/Recommendations
- Next steps beyond this study

Public Outreach and Participation



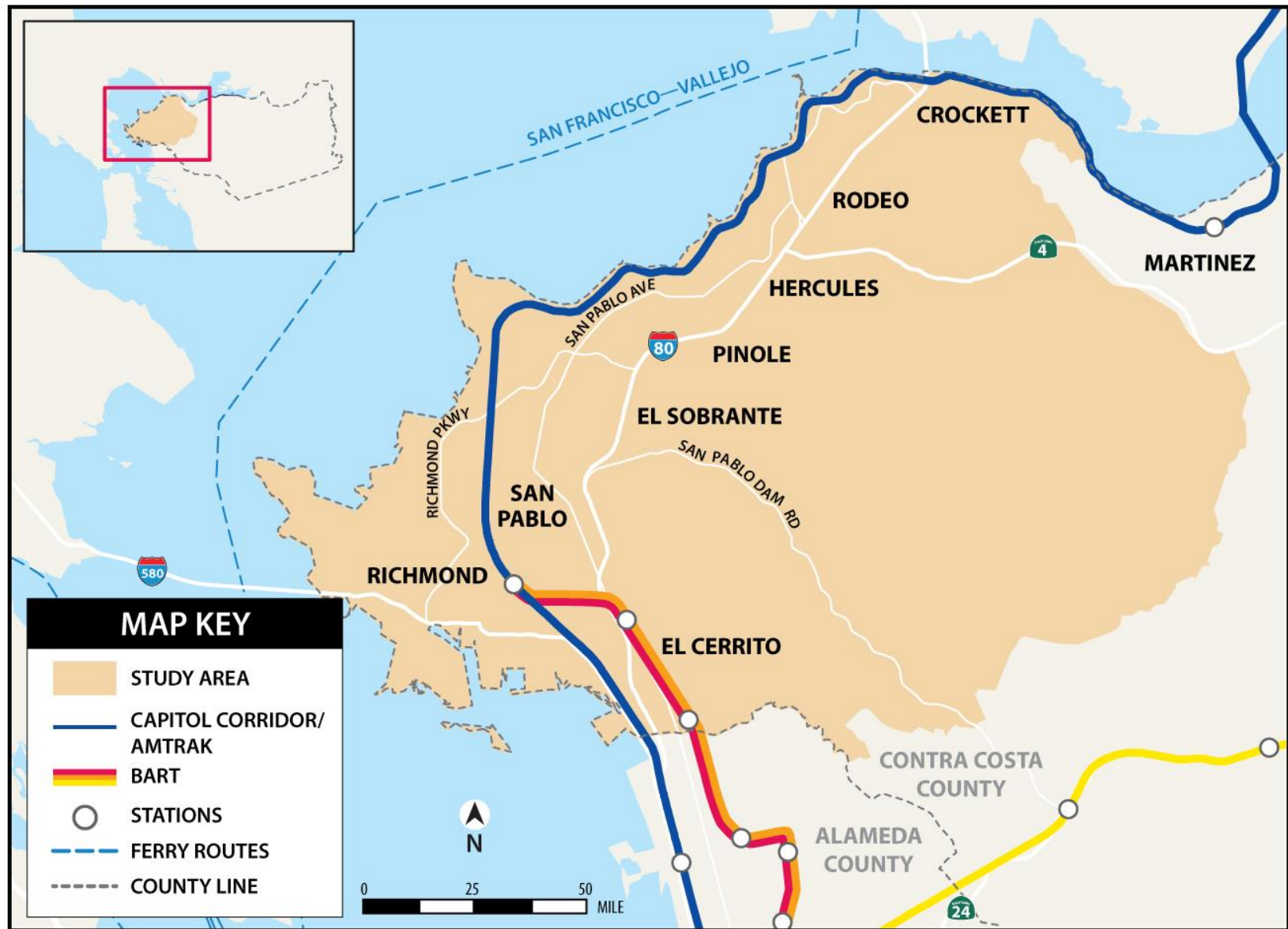
Study Background



Study Purpose

- Evaluate high-capacity transit options in West County's travel corridors
- Consider multimodal transit options including:
 - Freeway-based express bus
 - Bus rapid transit (BRT)
 - Light rail transit
 - Commuter rail
 - BART and
 - Ferry
- Provide a planning and road map for West County jurisdictions to pursue funding for transit improvements

Study Area





Overview of Alternatives



Remaining Alternatives

Alternatives



1: Express Bus



2: BRT on San Pablo/MacDonald



3: BRT on 23rd Street



4: Commuter Rail



6A: BART Extension – Rumrill Boulevard



6B: BART Extension – Richmond Parkway



Express Bus





Alternative 1: Express Bus

- Provide more service
- Expand service to new markets - Berkeley, Emeryville, and Oakland as well as San Francisco
- Improved links to freeway and effective use of HOV lanes
- Direct access ramps allows faster service
- Can be done in stages:
 - 3 years for operations to East Bay along I-80
 - 15 years for full suite of proposed improvements
- Projected ridership 2040
 - 11,160 total daily riders
 - 3,030 net new daily riders





Express Bus: Capital Cost



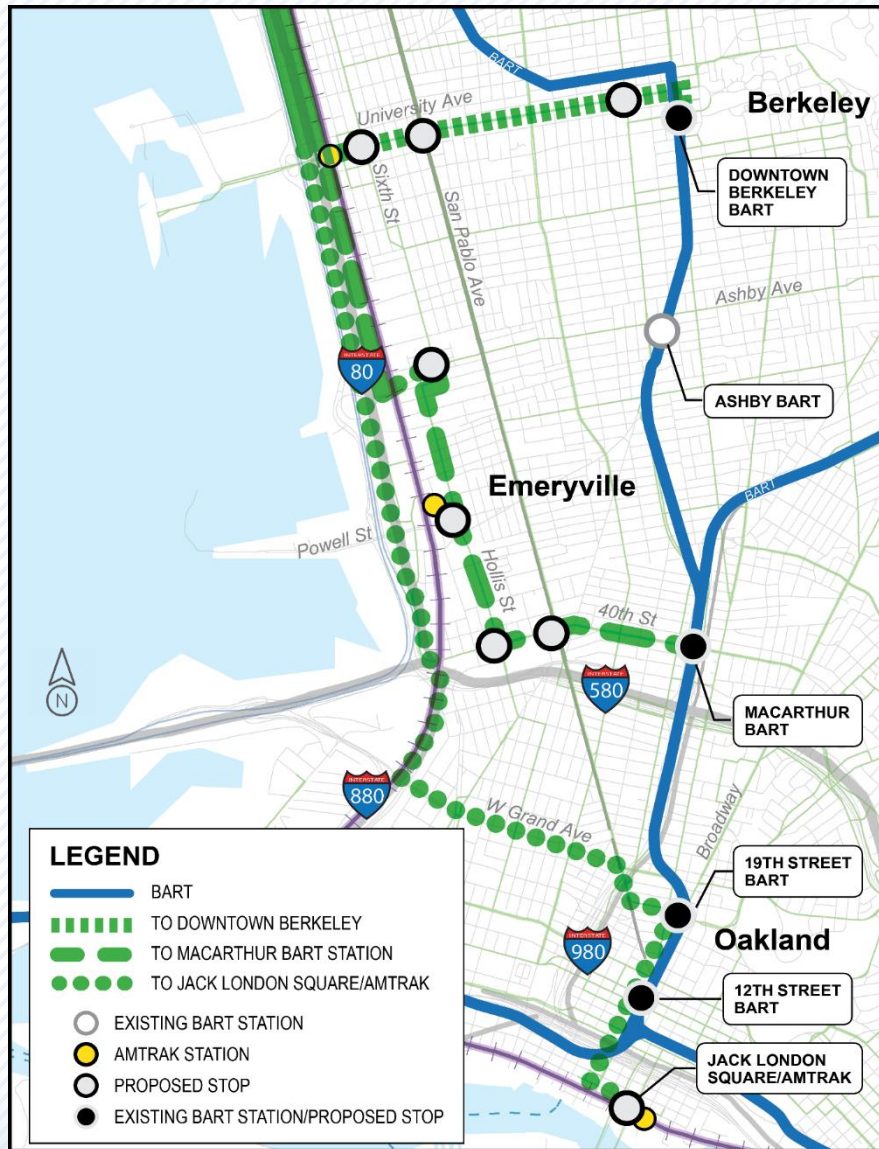
Time Horizon	Cost (2017 \$)
Short-term <ul style="list-style-type: none"> • Increase existing bus frequency • New service to Berkeley, Oakland, Emeryville • Transit priority improvements 	\$11 m
Medium-term <ul style="list-style-type: none"> • Bus stop improvements – Berkeley, Emeryville, Oakland • Expanded parking Richmond Pkwy. and Hercules Transit Centers 	\$91 m
Long-term <ul style="list-style-type: none"> • Freeway ramp improvements at I-80/Macdonald, Richmond Parkway and Hercules Transit Centers • New Express Bus-BRT transit center at Macdonald and I-80 	\$143 m
Total	\$245 m



Express Bus: Service to Alameda County

Direct Service to Alameda County

- Downtown Berkeley
- Emeryville
- Downtown Oakland



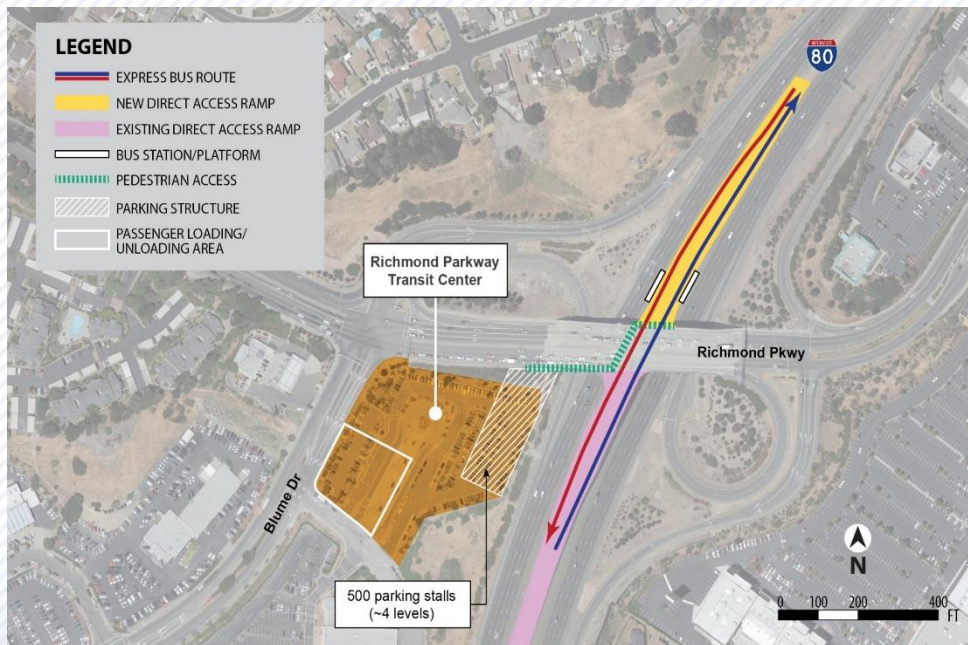


Express Bus: Access Ramps

- Purpose to facilitate bus operations between transit centers and HOV/HOT lanes
 - Reduce weaving across multiple freeway lanes
 - Improve travel times and reliability for transit vehicles
- Potential access ramps at:
 - Richmond Parkway Transit Center
 - Hercules Transit Center



Direct access ramp, Bellevue, WA





Bus Rapid Transit (BRT)



Alternatives 2 and 3: Bus Rapid Transit



Rapid Bus



Line 72 Rapid, AC Transit

- A. More frequent service
- B. Transit signal priority
- C. Queue-jumps
- D. Branding

Hybrid BRT



EmX, Eugene, OR

- A-C plus
- D. Some bus-only lanes
- E. More station amenities
- F. Specialized vehicles
- G. Off-board fare collection

Full BRT



Health Line, Cleveland, OH

- A-G plus
- H. Bus-only lanes for majority of corridor

BRT is customizable. Specific features will depend on each specific system's needs.



BRT on San Pablo Avenue/ Macdonald Avenue



Alternative 2: BRT on San Pablo/Macdonald Avenues



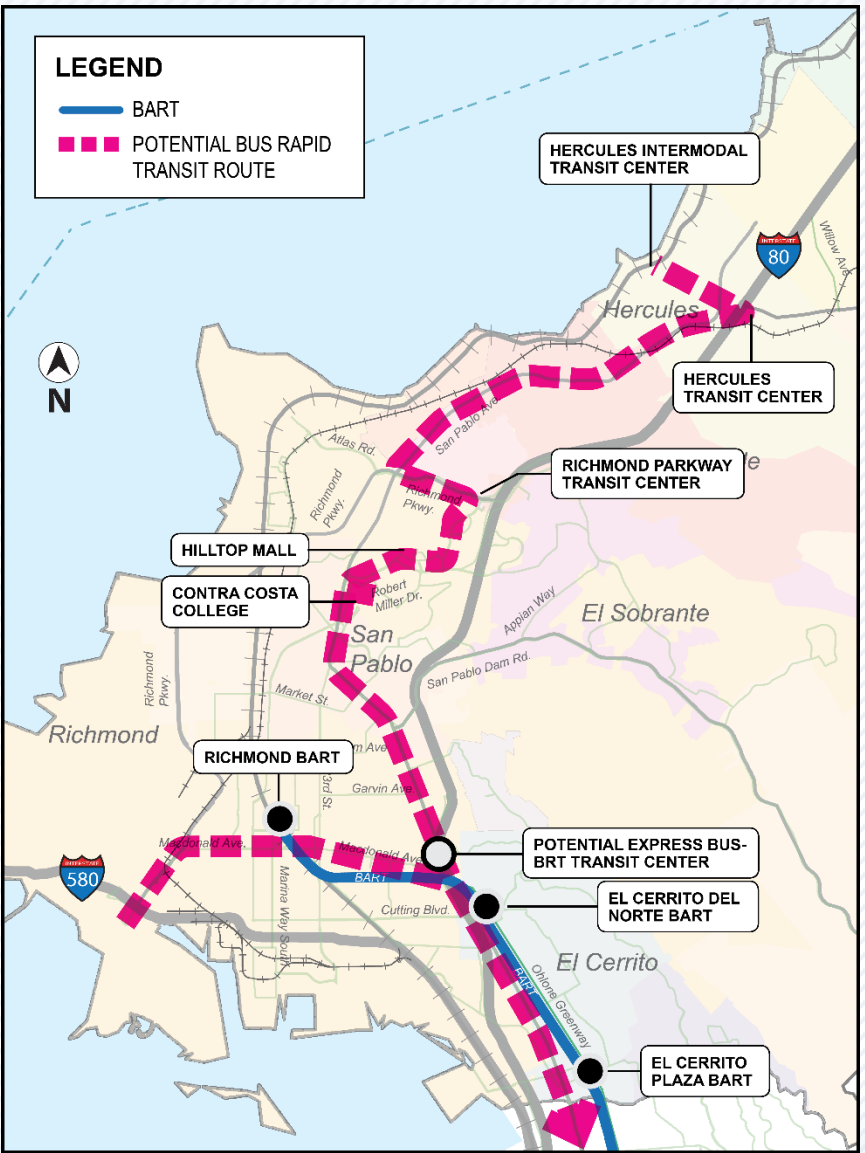
- Serves the heart of West County transit market
 - One of East Bay's highest ridership corridor
 - Includes many PDAs
- Extension of potential AC Transit BRT project
- Service affords flexibility in implementation
 - Builds on Rapid Bus infrastructure currently in place in corridor
- Projected ridership 2040
 - 11,460 total daily riders
 - 3,210 net new daily riders



Chronicle/Deanne Fitzmaurice



BRT on San Pablo/Macdonald: Capital Costs



Time Horizon	Cost (2017 \$)
Short-term <ul style="list-style-type: none">Transit priority improvementsExtend Rapid Bus improvements to Richmond Parkway	\$3 m
Medium-term <ul style="list-style-type: none">Extend Rapid Bus service to Hercules Transit CenterExpanded parking at Richmond Parkway and Hercules Transit CentersSan Pablo bus-only lanes – El Cerrito del Norte to 23rd StreetMacdonald bus-only lanes – San Pablo to 23rd Street	\$180 m
Long-term <ul style="list-style-type: none">San Pablo bus-only lanes – 23rd Street to Richmond ParkwayExpress Bus-BRT TC at Macdonald/I-80Extend Rapid Bus service to RITC	\$60 m
Total	\$243 m



BRT on 23rd Street



Alternative 3: BRT on 23rd Street

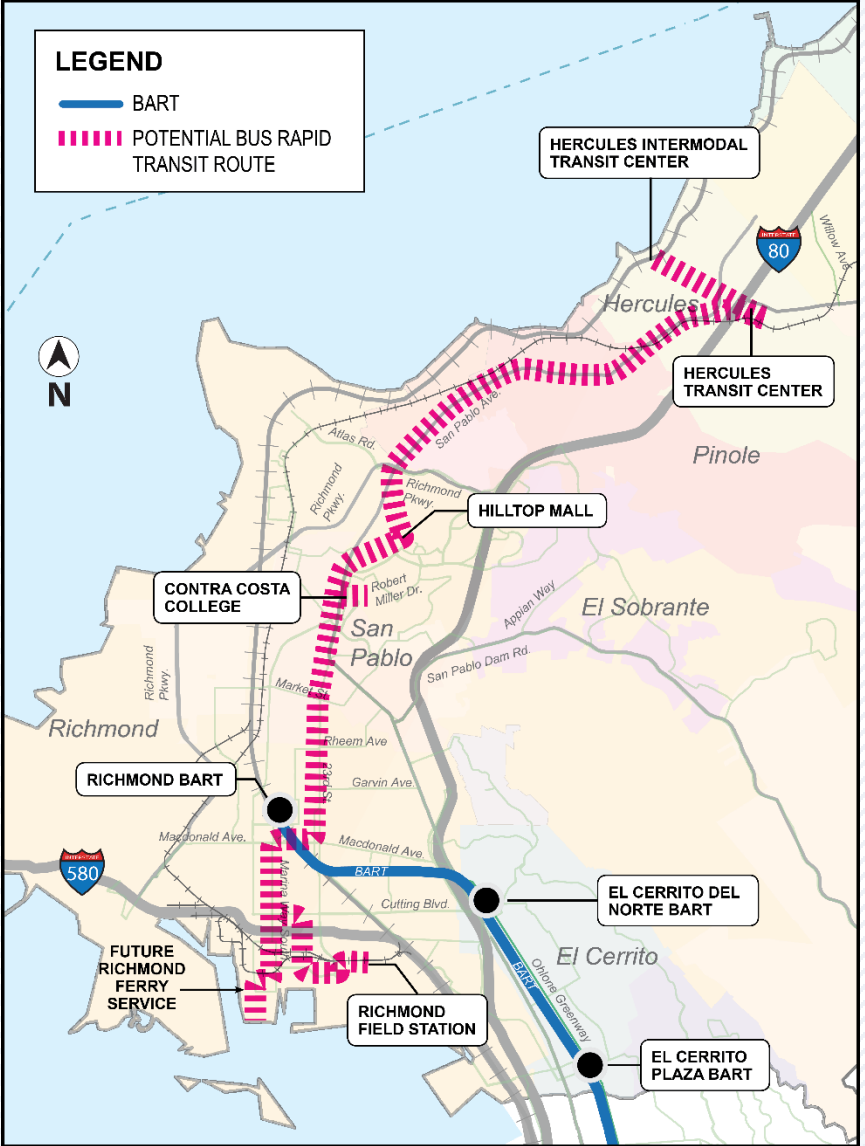


- Serves the heart of West County transit market
- 23rd Street serves strong markets
 - Richmond and San Pablo
 - Richmond Field Station
 - New Ford Point ferry terminal
 - Marina Bay/Richmond Harbor districts
- Service affords flexibility in implementation
- Projected ridership 2040
 - 5,340 new daily riders





BRT on 23rd Street: Capital Costs



Time Horizon	Cost (2017 \$)
Short-term <ul style="list-style-type: none">Transit priority improvementsImprovements on 23rd Street from Macdonald to Richmond Field StationBRT station at Ford Point	\$17 m
Medium-term <ul style="list-style-type: none">Expanded parking at Richmond Parkway and Hercules Transit CentersBus-only lanes on 23rd Street between Macdonald and Rheem AvenuesExtend Rapid Bus service to Hercules Transit CenterNew vehicles (20 buses)BRT stations	\$99 m
Long-term <ul style="list-style-type: none">Bus-only lanes on 23rd/San Pablo from Rheem to Hilltop MallExtend Rapid Bus service to RITCBRT stations	\$63 m
Total	\$179 m



Commuter Rail

(Regional Intermodal Transit Center and
Capitol Corridor Fare Subsidy)





Alternative 4: Commuter Rail

- Significant transit travel time savings
- Full build-out of Regional Intermodal Transit Center (RITC) at Hercules, with Capitol Corridor stop
- Fare subsidy for West County travelers
 - Estimated cost for 75% subsidy
 - \$5,708,000 for three-year pilot
 - \$11 cost per rider
 - \$39 cost per new rider
 - Estimated new daily riders
 - 186 riders with 75% subsidy
- Projected ridership 2040 with RITC
 - 440 new daily riders



Capitol Corridor Fare Subsidy + RITC: Capital Costs



Time Horizon	Cost (2017 \$)
Short-term <ul style="list-style-type: none">Fare subsidy pilot (operating costs)	--
Short/Medium-term <ul style="list-style-type: none">Build-out of Regional Intermodal Transit Center (RITC)	\$51 m
Total	\$51 m





BART



Alternatives 6A and 6B: BART Extension from Richmond station



- BART carries 35% of transit ridership in West County on an average weekday
- El Cerrito del Norte BART station is reaching capacity
- Provides most connections to major destinations in Bay Area
- Draws transit riders closer to their trip origin
- Provides most reliable transit service
- Projected Ridership 2040
 - 32,530 total daily ridership
 - 6,370 net new daily ridership



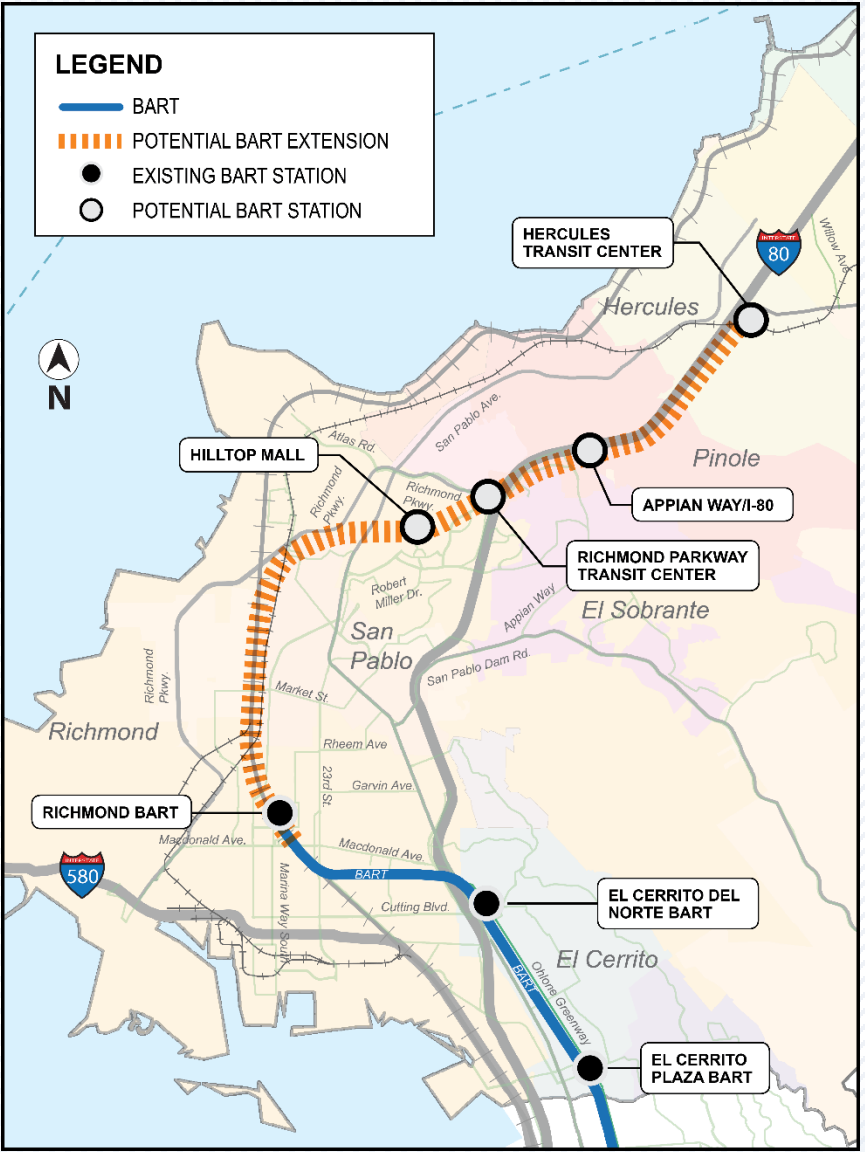
BART Extension via Rumrill Blvd: Capital Cost



Time Horizon	Cost (2017 \$)
Short-term <ul style="list-style-type: none">• Conceptual engineering• Program-level environmental clearance	\$56 m
Medium-term <ul style="list-style-type: none">• Preliminary engineering• Project-level environmental clearance	\$74 m
Long-term <ul style="list-style-type: none">• BART service to Hercules• ROW Acquisition• Vehicles (60 cars)• Stations and terminal yard	\$3,452 m
Total	\$3,582 m

Note: There is a potential for phasing construction to reduce initial costs







BART Extension via Richmond Parkway: Capital Cost



Time Horizon	Cost (2017 \$)
Short-term <ul style="list-style-type: none">• Conceptual engineering• Program-level environmental clearance	\$69 m
Medium-term <ul style="list-style-type: none">• Preliminary engineering• Project-level environmental clearance	\$92 m
Long-term <ul style="list-style-type: none">• BART service to Hercules• Vehicle acquisition (60 cars)• Stations and terminal yard	\$4,000 m
Total	\$4,161 m







Note: There is a potential for phasing construction to reduce initial costs

Summary of Alternatives

Alternative	Cost (millions) *	2020 Daily Ridership	2040 Daily Ridership	2040 Net New Daily Ridership
 1: Express Bus	\$245	8,780	11,160	3,030
 2: BRT on San Pablo/MacDonald	\$243	8,660	11,460	3,210
 3: BRT on 23rd Street	\$179	4,110	5,340	5,340
 4: Commuter Rail – RITC	\$51	--	440	440
 6A: BART Extension – Rumrill Boulevard**	\$3,600	21,980	32,530	6,370
 6B: BART Extension – Richmond Parkway**	\$4,200	21,980	32,170	6,010

* Cost are in 2017 dollars.

** Ridership numbers are for West County stations only.

EVALUATION CRITERIA		PERFORMANCE MEASURE
	RIDERSHIP	Total riders
		Net new riders
	COST AND EFFICIENCY	Capital cost
		Operating and maintenance cost
		Annualized cost per rider
	SPEED AND RELIABILITY	Transit travel time improvement
		Transit travel time reliability
	ACCESS AND CONNECTIVITY	Regional transit centers served
		Quality of connections to existing transit systems and facilities
		Service to West County markets lacking major transit connections
	FEASIBILITY	Time to implementation
	COMMUNITY	Consistency with local plans and policies
		Public and stakeholder support
		Economic and transit-oriented development (West County PDAs served)



Looking for Feedback



Next Steps for the Study

- Council Presentations

- 2/28 Richmond
- 3/6 San Pablo
- 3/7 Pinole
- 3/8 El Sobrante
- 3/14 Hercules
- 3/21 El Cerrito

- Online Survey

- Available 2/21 – 3/26

- Finalize Draft Plan with recommendations for next steps – May 2017



Thank you!

Stay informed. Get involved!

www.WestCountyTransitStudy.com

Make sure your voice is heard!

- ✓ Fill out the online survey to give us your feedback on the alternatives being studied
- ✓ Submit a comment card
- ✓ Visit the website to learn more about the study